

RC Circuits

Name: _____ Section: 4BL-____ Date performed: ____/____/____

Lab station: _____ Partners: _____

Circuit box #____ Oscilloscope #____

Parts A and B

Circuit diagram:

Settings:

V_S (Ch____): _____ V/div mode: DC / AC

V_R (Ch____): _____ V/div mode: DC / AC

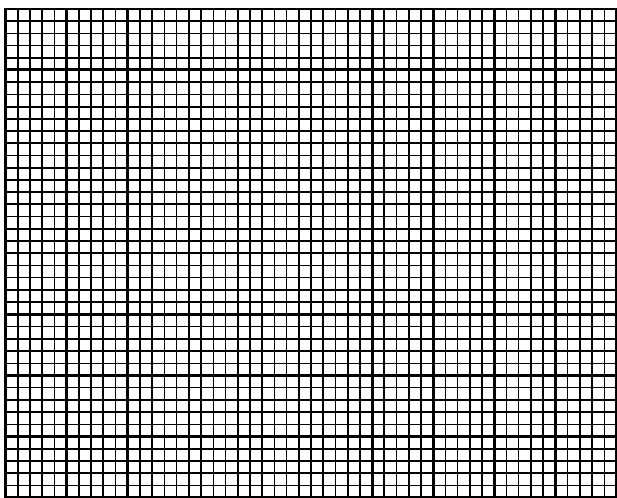
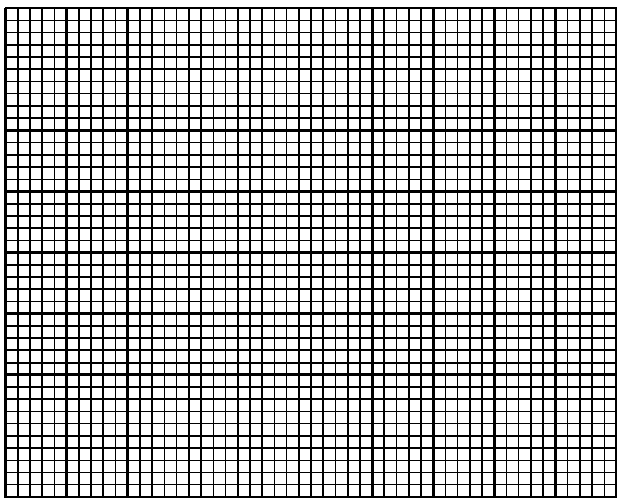
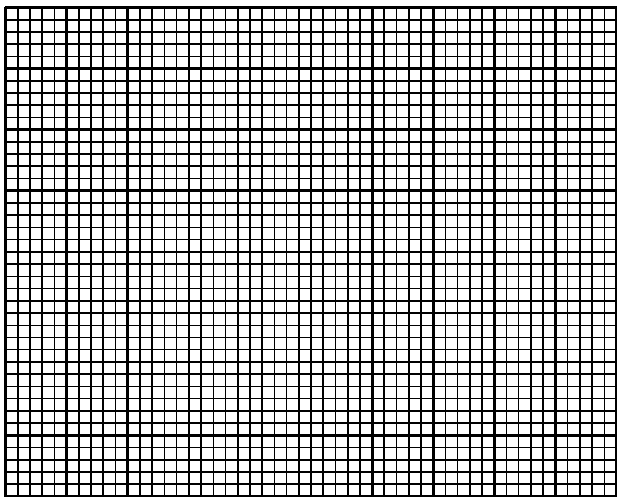
V_C (Ch____): _____ V/div mode: DC / AC

Timing: _____ s/div frequency dial = _____ Hz

Variable resistor = _____ (range: _____)

Plot V_S , V_R , and V_C vs. t on the next page (three graphs stacked with equal times aligned).

Demonstrate the “half-life property” on the V_R and V_C graphs (both charging and discharging).



Part C

Variable resistance = (range:)

FG internal resistance =

Total resistance =

d

Plot V_C vs. t for C_1 on the next page.

	τ_{graph} ()	τ_{cursors} ()	C ()
C_1			
C_2	XXXX		
$C_1 \parallel C_2$	XXXX		

Comparisons (percent difference):

V_C (Ch___): _____ V/div _____ s/div mode: DC / AC

